

REMARKS

Applicants have received and reviewed the Office Action dated March 1, 2010. A two month extension of time is filed herewith. Therefore, the time period for this Response extends up to and includes Monday, August 2, 2010, the next business day following Sunday, August 1. Applicants have amended claims 1, 6, 22 and 23. No new matter has been added to the amended claims, with support for the amendments being found throughout the specification. For example, see the originally filed claims and the description of Embodiment 3 at pages 18-20 of the specification.

Interview Summary

Applicants thank the Examiner for taking the time to conduct a phone interview with Ryan Fletcher and Brian Batzli (Reg. No. 32,960) on June 23, 2010. The Examiner's comments were helpful. The parties discussed the pending claims and cited prior art, including Maruniak (US 3,817,390), Hagano (US 2002/0125254) and Martin (US 4,320,789). The parties disputed the Examiner's use of prior art that does not relate to the manufacture or use of PET bottles. The parties further discussed and disagreed on the reason for embedding a seam as disclosed in Martin. The parties failed to reach an agreement.

35 U.S.C. § 103(a)

As an initial matter, Applicants have amended the present claims in view of both the Office Action of March 1, 2010 and the Examiner's remarks and suggestions during the Examiner Interview.

Claims 1, 2, 6, 11, 22 and 24

At page 2 of the Office Action, claims 1, 2, 6, 11, 22 and 24 were rejected under 35 U.S.C. § 103(a) over Shinichi et al (JP8323845) in view of Uhlig (US 3,740,181), Hagano et al. (US 2002/0125254), Farrell (US 4,038,006), and optionally Maruniak et al. (US 3,817,390). In the alternative, at page 9 of the Action, claims 1, 2, 6, 11, 22 and 24 were rejected under 35 U.S.C. § 103(a) over Uhlig in view of Mojonnier et al. (US 3,366,290), Hagano et al., Farrell, and optionally Maruniak et al. Applicants respectfully traverse.

Solely to further prosecution and without acquiescing to the rejections, Applicants have amended independent claims 1, 6 and 22. Amended claim 1 recites, in part, a “PET preform” and “PET bottle” within the body of the claims. Amended claim 1 further recites, in part, a bottle shaped blow mold “for embedding a bonded cut-off portion remaining in the handle section into the PET bottle.” Amended claim 6 recites, in part, “a fifth PET container having the bonded cut-off portion of the handle section embedded into the PET container.” Amended claim 22 recites, in part, “a bottle-shaped blow mold for embedding the cut-off portion remaining in the handle section into the PET bottle.”

Applicants assert the pending claims are non-obvious over the cited prior art for at least the following two reasons: 1) the cited prior art, with the exception of Shinichi et al, fails to recognize or address the formation of PET bottles, and 2) the cited prior art fails to disclose or suggest embedding a bonded cut-off portion remaining in the handle section into the PET bottle. Claims 1, 6 and 22 are non-obvious because they all require these limitations.

1. The presently claimed invention is directed to an arrangement for manufacturing a PET bottle having a handle formed on a body through injection molding and a method of manufacturing a PET bottle having a handle formed on the body. As amended, all the claims recite PET in the preamble and as a limitation within the body of the claims. As a skilled artisan recognizes, and Applicants have discussed in previous Responses, PET has unique characteristics that differentiate the manufacturing of a PET bottle from the manufacturing of an alternative plastic bottle. These unique characteristics, i.e., low melt strength and poor bonding due to orientation, contribute to the novelty and non-obviousness of the presently claimed invention.

The melt strength is low when PET is melted, and once air is blown into a preform of PET material, it is difficult to bond two halves of the blown preform by heating (e.g., due to the orientation of PET). The presently claimed invention recognizes and overcomes these properties of PET. By contrast, the cited references, except Shinichi et al., fail to disclose or

address these problems. While Shinichi et al. discusses PET bottles, Shinichi fails to disclose at least an intermediate blow molding step, injection molding around a seam with injection resin, sealing flanges through insert injection molding, and using a mold punch. (Action at page 2-4.) Accordingly, the cited references neither suggest nor teach the present limitation requiring a bottle-shaped blow mold for embedding the bonded cut-off portion remaining in the handle section into the PET bottle.

2. As amended, claims 1, 6 and 22 of the presently claimed invention all require a bottle-shaped blow mold for embedding a bonded cut-off portion remaining in the handle section of a PET bottle or a fifth PET container having the bonded cut-off portion of the handle section embedded into the PET container. None of the cited references disclose this limitation.

The Office Action appears to rely on Farrell (Action at page 4) and Martin et al. (Action at page 8) for the disclosure of this limitation; but, it is easy to differentiate both. First, Farrell discloses the shearing of a compressed part of a handle portion from the remainder of the container "while the molten material of the parison is still hot . . ." (Col. 1:20-28.) In Farrell there is no bonded cut-off portion within the handle section. Thus, there is no seam within the grip area of the handle portion to embed.

Martin et al. discloses a tail seal for a collapsible container for resisting the shock of dropping the container from higher levels. (Col. 3:12-15.) The seal line of Martin et al. occupies a recess defined in the sealed end by the flexible container walls. (Col. 3:17.) "The recess serves to absorb outwardly directed shock by movement of its walls to protect the seal line from rupture." (Col. 3:19-21) (emphasis added.) Thus, the recessed seal of Martin et al. is really a flexible incut in a collapsible container that expands outward upon the application of pressure to the bag. The recessed seal line of Martin et al. is not embedded within the container. Moreover, the recessed seal line of Martin et al. is capable of moving (extending) beyond the container walls upon the application of pressure.

By contrast, the presently claimed invention has a bonding apparatus or bonding step to bond the cut-off portion within a handle section of the PET bottle. After bonding, the presently claimed invention requires either a bottle-shaped blow mold for embedding a bonded cut-off portion remaining in the handle section in the PET bottle or blowing compressed air into the fourth PET container in order to form a fifth PET container having the bonded cut-off portion of the handle section embedded into the PET container. This novel and non-obvious apparatus or method allows the bonded seam of the handle to become embedded within the PET container. The embedded seam results in a more comfortable and user-friendly handle.

None of the cited references overcome the deficiencies of either Farrell or Martin et al. In view of the above argument and amendments, Applicants respectfully request the withdrawal of this rejection.

Claims 3 and 8

At page 5 of the Action, claims 3 and 8 were rejected under 35 U.S.C. § 103(a) over Shinichi et al in view of Uhlig, Hagano et al., Farrell, and Maruniak et al. as applied to claims 1 and 6 above, and further in view of Fischer et al. (US 4,123,217). In the alternative, at page 12 of the Action, claims 3 and 8 were rejected under 35 U.S.C. § 103(a) over Uhlig, Mojonnier et al., Hagano et al., Farrell, and Maruniak et al., as applied to claims 1 and 6 above, and further in view of Fischer et al. Applicants respectfully traverse.

Solely to further prosecution and without acquiescing to the rejections, Applicants have amended independent claims 1 and 6 as discussed above. Claims 3 and 8 depend from independent claims 1 and 6 respectively. Claims 3 and 8 incorporate all the limitations of the claims from which they depend and are patentable for at least the same reasons as claims 1 and 6. Applicants respectfully request the withdrawal of this rejection.

Claims 23 and 25

At page 6 of the Action, claims 23 and 25 were rejected under 35 U.S.C. § 103(a) over Shinichi et al. in view of Hagano et al., Farrell, Martin et al. (US 4,320,789), and optionally Maruniak et al. Applicants respectfully traverse.

Solely to further prosecution and without acquiescing to the rejections, Applicants have amended independent claim 23. Amended claim 23 recites, in part, "blowing compressed air into the PET container of step b) in order to form a PET container, wherein the bonded cut-off portion in the handle section is embedded into the PET container, thereby avoiding a handle with a protruding seam and making the handle more comfortable to a user."

As discussed above, none of the cited references, including Farrell or Martin et al., disclose a PET container, "wherein the bonded cut-off portion in the handle section is embedded into the PET container."

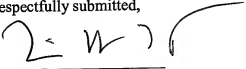
Claim 25 depends from independent claim 23. Therefore, claim 25 incorporates all the limitations of claim 23 and is patentable for at least the same reasons as claim 23. Applicants respectfully request the withdrawal of this rejection.

Summary

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

27 July 2010
Date

Respectfully submitted,



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